

Claims

- [c1] What is claimed is:
1. A driving method of a plasma display panel (PDP) device, the PDP device comprising a first electrode and a second electrode;
the driving method comprising:
supplying the first electrode with a first voltage;
supplying the second electrode with a second voltage during a first time-interval in which the second voltage is higher than the first voltage and a first voltage difference is equal to the second voltage minus the first voltage; and
supplying the second electrode with a third voltage during a second time-interval in which the third voltage is lower than the first voltage and a second voltage difference is equal to the third voltage minus the first voltage.
- [c2] 2. The driving method of claim 1 wherein the second voltage is positive, and the third voltage is negative.
- [c3] 3. The driving method of claim 1 wherein the PDP device further comprises:
a first power supply for supplying the first electrode with the first voltage;
a second power supply for supplying the second electrode with the second voltage;
a first switch electrically connected to the second electrode and the second power supply;
a third power supply for supplying the second electrode with the third voltage;
and
a second switch electrically connected to the second electrode and the third power supply;
the driving method further comprising:
turning on the first switch during the first time-interval for supplying the second electrode with the second voltage so that the voltage difference between the first electrode and the second electrode is held at the first voltage difference; and
turning on the second switch during the second time-interval for supplying the second electrode with the third voltage so that the voltage difference between the first electrode and the second electrode is held at the second voltage

difference.

- [c4] 4. The driving method of claim 3 wherein the PDP device further comprises a display panel, which is viewed as an equivalent capacitor, and an inductor for making the voltage difference between the first electrode and the second electrode oscillate between the first voltage difference and the second voltage difference through a combination of the inductor and the equivalent capacitor.
- [c5] 5. The driving method of claim 4 wherein the PDP device further comprises a third switch electrically connected to the inductor;
the driving method further comprising:
turning on the third switch during a third time-interval, which is between the first time-interval and the second time-interval, for making the voltage difference between the first electrode and the second electrode oscillate downwards from the first voltage difference.
- [c6] 6. The driving method of claim 4 wherein the PDP device further comprises a fourth switch electrically connected to the inductor;
the driving method further comprising:
turning on the fourth switch during a fourth time-interval, which is after the second time-interval, for making the voltage difference between the first electrode and the second electrode oscillate upwards from the second voltage difference.
- [c7] 7. The driving method of claim 6 wherein the PDP device further comprises a fifth switch electrically connected to the second electrode and a grounding;
the driving method comprising:
turning on the fifth switch for holding the voltage of the second electrode at a grounding voltage when the voltage of the second electrode reaches the grounding voltage.
- [c8] 8. The driving method of claim 7 wherein the PDP device further comprises a sixth switch electrically connected to the inductor;
the driving method further comprising:
turning on the sixth switch after the voltage of the second electrode is held at

the grounding voltage for making the inductor and the equivalent capacitor generate an oscillation so that the voltage of the second electrode oscillates upwards from the grounding voltage.

- [c9] 9. The driving method of claim 7 wherein the PDP device further comprises a seventh switch electrically connected to the inductor;
the driving method further comprising:
turning on the seventh switch after the voltage of the second electrode is held at the grounding voltage for making the inductor and the equivalent capacitor generate an oscillation so that the voltage of the second electrode oscillates downwards from the grounding voltage.
- [c10] 10. A driving method of a plasma display panel (PDP) device, the PDP device comprising a first electrode and a second electrode;
the driving method comprising:
(a) supplying the first electrode with a first voltage;
(b) supplying the second electrode with a second voltage during a first time-interval in which the second voltage is higher than the first voltage and a first voltage difference is equal to the second voltage minus the first voltage;
(c) supplying the second electrode with a third voltage during a second time-interval in which the third voltage is lower than the first voltage and a second voltage difference is equal to the third voltage minus the first voltage;
(d) making the voltage difference between the first electrode and the second electrode oscillate downwards during a third time-interval, which is between the first time-interval and the second time-interval, from the first voltage difference to the second voltage difference; and
(e) making the voltage difference between the first electrode and the second electrode oscillate upwards during a fourth time-interval, which is after the second time-interval, from the second voltage difference to the first voltage difference.
- [c11] 11. The driving method of claim 10 wherein the second voltage is positive, and the third voltage is negative.
- [c12] 12. The driving method of claim 10 wherein the PDP device further comprises a

display panel, which is viewed as an equivalent capacitor, and an inductor for making the voltage difference between the first electrode and the second electrode oscillate between the first voltage difference and the second voltage difference through an oscillation generated from the combination of the inductor and the equivalent capacitor.